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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,213	07/31/2003	Horace W. Furumoto	1498.1021-015	1428
21005	7590	12/30/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			FARAH, AHMED M	
			ART UNIT	PAPER NUMBER
			3735	

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11, 12, and 15-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Eckhouse et al. U.S. Patent No. 5,964,749.

Eckhouse et al. disclose apparatus and methods of use for skin treatment, the apparatus comprising a light source for generating a packets of light pulses with a variable delays between pulses in the range of 10-100 milliseconds. They further teach that the total number of pulses per pulse train can be varied (see col. 5, lines 37-45). Hence, Eckhouse et al. clearly teach a skin treatment light source that generates plurality of pulse trains (long effective output), wherein each pulse train further comprises various of sub-pulses.

In one embodiment, they teach the delay between pulse trains is in the range of between 0.5 to 10 milliseconds. The shorter pulse delays between the sub-pulses is less than the thermal relaxation time of the targeted structure (col. 6, lines 26-32).

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Furthermore, the pulse delay between the successive pulse trains is greater than the thermal relaxation time of the non-targeted structure, epidermis in this case.

As to claims 15-18, Eckhouse teach that the appropriate laser sources include an Nd:YAG laser, a ruby laser, an alexandrite laser, diode lasers and others (col. 3, lines 48-50). As to claims 20-22, the applicant recites an intended use of the treatment device.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhouse et al. in view of Miller U.S. Patent 6,027,495.

Although Eckhouse et al., described above, disclose that it is known to use gas discharge lasers for dermatological treatments (col. 1, lines 48-55), they do not use a gas discharge laser or a dye laser for their invention. They further fail to teach the targeted structures include normal sized blood vessels.

However, Miller discloses apparatus and method for removal of unwanted leg veins and other vascular lesions from skin of a patient, the method comprising the steps of: generating a long effective output light pulse having a pulse duration in the range of about 1-99 milliseconds (col. 9, line 10); and directing the output light pulse to the tissue

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being treated (see claim 1 and the abstract). As to claim 12, Miller teaches the use of various laser sources including a dye laser (Col. 2, line 45) and a semiconductor laser (Col. 9, line 7).

Therefore, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify Eckhouse et al. with Miller and use a dye laser, a gas discharge laser, or other suitable laser as an alternative light source in order to provide treatment light to a desired tissue. It would have been further obvious to use the treatment device for vascular treatment as described by Miller.

#### ***Allowable Subject Matter***

Claims 1-10 are allowed.

#### ***Response to Arguments***

Applicant's arguments filed on September 30, 2005, have been fully considered but they are not persuasive. The applicant argues that Eckhouse does not teach a series of sub-pulses with "a periodicity that is less than the thermal relaxation time of a targeted structure." Furthermore, although the applicant recognizes that Eckhouse teaches the use of sub-pulses having an inter-pulse delay time of between 0.5 to 10 milliseconds, he argues that this pulsing mode is intended for a treatment method that is completely different than the treatment method of the instantly claimed invention.

In response to the first argument, the applicant's claims fail to clearly recite the boundary and/or range of the inter-pulse delays (periodicity of the sub-pulses) that is

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less than the thermal relaxation time of the targeted structures. As to the second argument, claims 11-20 of the instant application are directed to a treatment device. Hence, if the prior art device meets the recited limitation or if it is capable to provide the recited limitations, the use of the device (i.e., the method of recited treatment), may be an intended use. Therefore, since Eckhouse teaches the use of sub-pulses having an inter-pulse delay time of between 0.5 to 10 milliseconds, his device anticipates recited limitations of the apparatus claims 11, 12, and 15-18 as broadly as claimed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmed M. Farah whose telephone number is (571) 272-

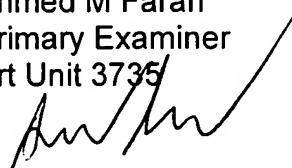
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4765. The examiner can normally be reached on Mon-Thur. 9:30 AM-7:30 PM, and 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ali Imam can be reached on (571) 272-4737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ahmed M Farah  
Primary Examiner  
Art Unit 3735



December 27, 2005.